California Physician Workforce Presentation

Dean Grafilo is an Associate Director in Government Relations with the California Medical Association. He formerly served as Chief of Staff for Asm. Warren T. Furutani and prior to that as a Senior Assistant for Assembly Majority Leader Alberto Torrico for three years. Before working in the Assembly, Dean helped to organize working families in Seattle, Honolulu and San Francisco for the Service Employees International Union and the International Longshore Warehouse Union.

Yvonne Choong is an Associate Director in the Center for Medical and Regulatory Policy with the California Medical Association. She previously worked at the University of Southern California's School of Policy, Planning and Development directing policy outreach and the governance policy program. She has also worked as an analyst for the Judicial Council of California and the California Legislative Analyst's office.

5 Issues Facing California's Physician Workforce

California Medical Association
Physicians dedicated to the health of Californians

Mark Kashtan & Christina Lee

Presented to the Medical Board of California
May 6, 2011

Issue 1: The Physician Pipeline

Medical School

- California has the #1 retention rate for medical school graduates in the nation (62%)

- However, only 41% of medical students from California are able to attend an in-state medical school

- As a result, only 26% of active patient care physicians in California were educated in-state

Issue 1: The Physician Pipeline

Graduate Medical Education

- California has the #2 retention rate for medical residents in the nation (69%)

- However, California ranks 32nd among states in its resident-to-population ratio (25.1/100k vs. a national average of 35.7/100k)

- Medicare funding for GME has been frozen since 1997

- Medi-Cal funding for GME is undersized and unreliable

Issue 2: Practice Environment

- CA has the 4th lowest Medicaid (Medi-Cal) rates in the US, paying on average 56% of the Medicare fee schedule

- CA has the 4th highest cost-of-living in the country, at 132% of the national average

- PPACA: will expand Medi-Cal to 1.7 million currently uninsured Californians, and subsidizes coverage for 1.4 million more

- MICRA keeps medical liability insurance premiums low

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Issue 3: Primary Care Shortage

- 74% of CA's 58 counties have an undersupply of primary care physician's according to COGME standards
- Primary care physician's make up 34% of California's physician workforce
- Likewise, primary care residencies currently represent about 1/3rd of GME positions
- Primary care residencies draw lower levels of interest among graduating medical students compared to other specialties

Issue 3: Primary Care Shortage

- Public medical school tuition increased 11.1% annually from 2001 to 2006 and continues to grow

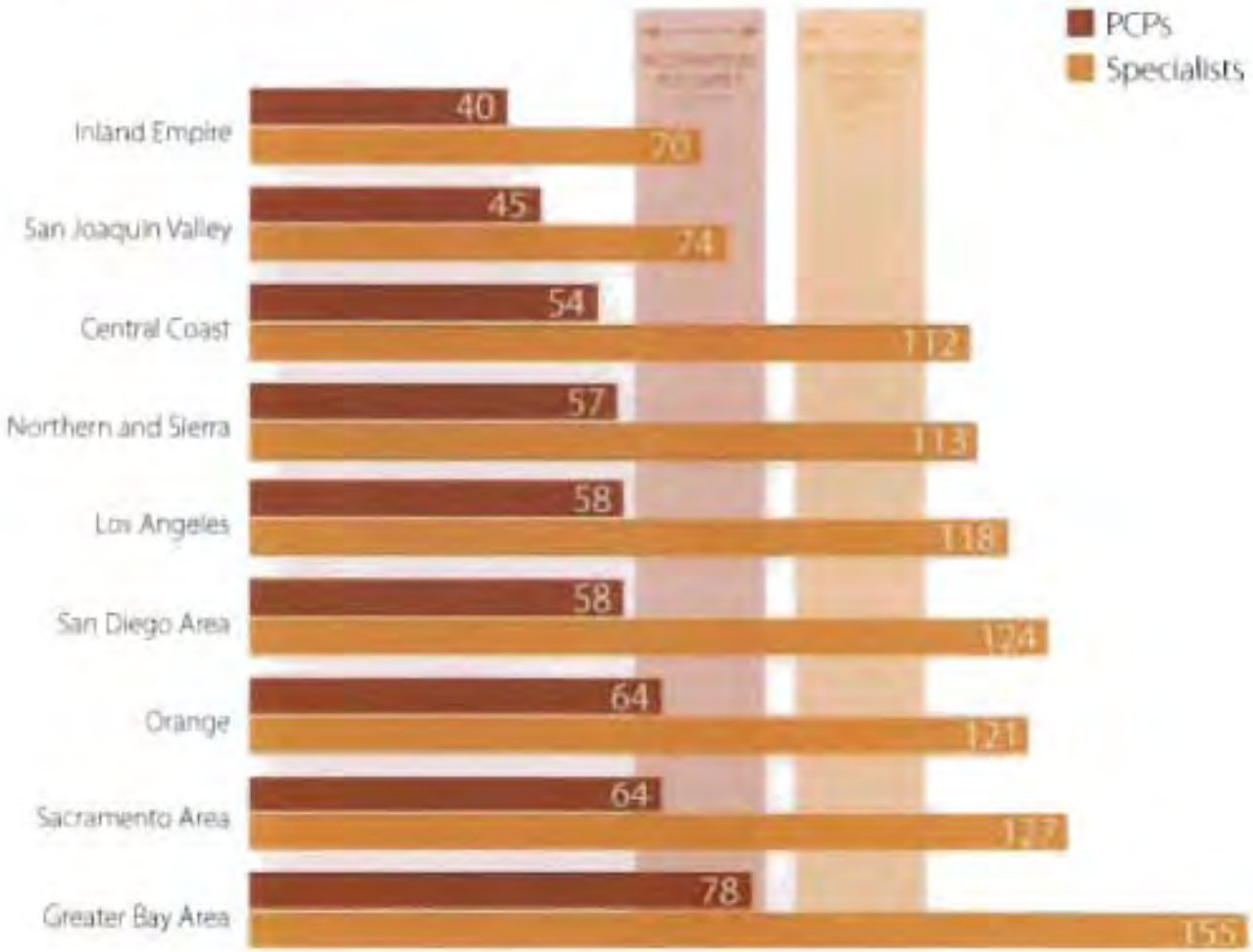
- 86% of medical students are now graduating with outstanding loans, and the average amount of debt for a medical student graduating in 2009 was $156,456

- PCP's average 70% of the median income for all doctors

- PCP's in CA make only 88% of the national average income

Active PCPs and Specialists per 100,000 Population,

California Regions, 2008



Issue 4: Geographical Distribution

- The distribution of physicians across California is extremely uneven

- There are over 200 distinct areas and populations in California designated as Medically Underserved

- There is considerable overlap between Medically Underserved Areas and regions with a high proportion of Medi-Cal patients

- In 2008, only 57% of physicians were able to accept new Medi-Cal patients due to low reimbursement rates

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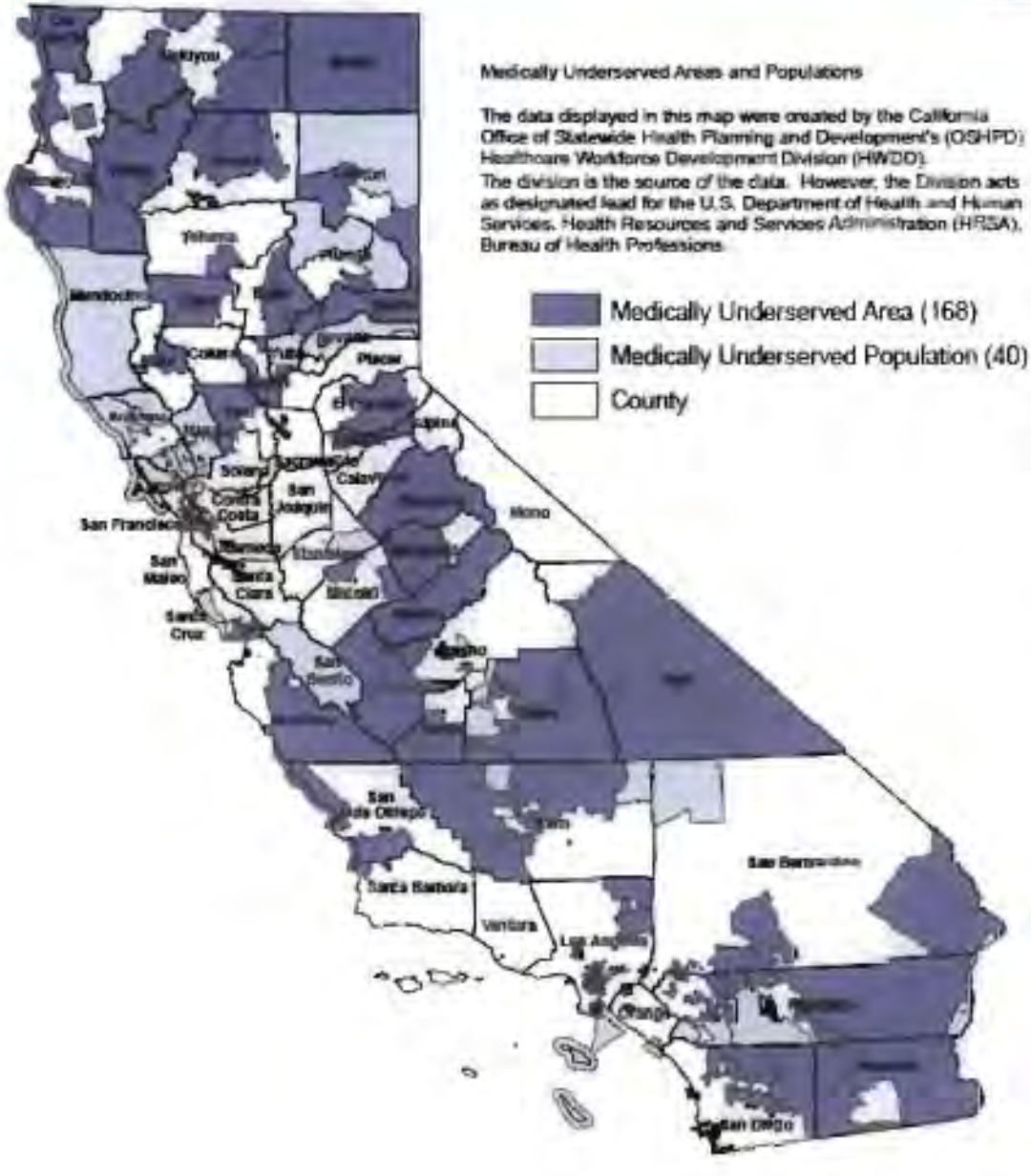

Medically Underserved Areas and Populations

October 2010

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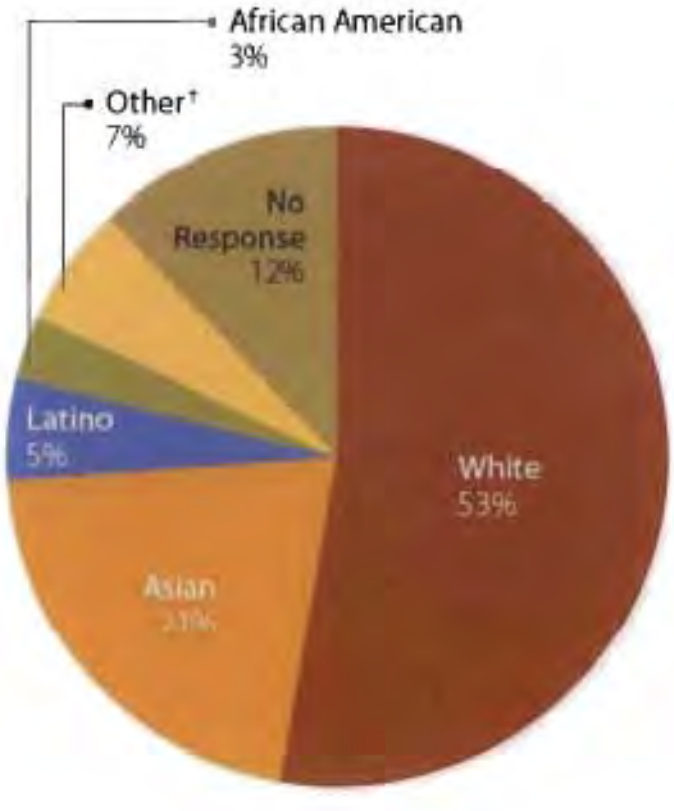
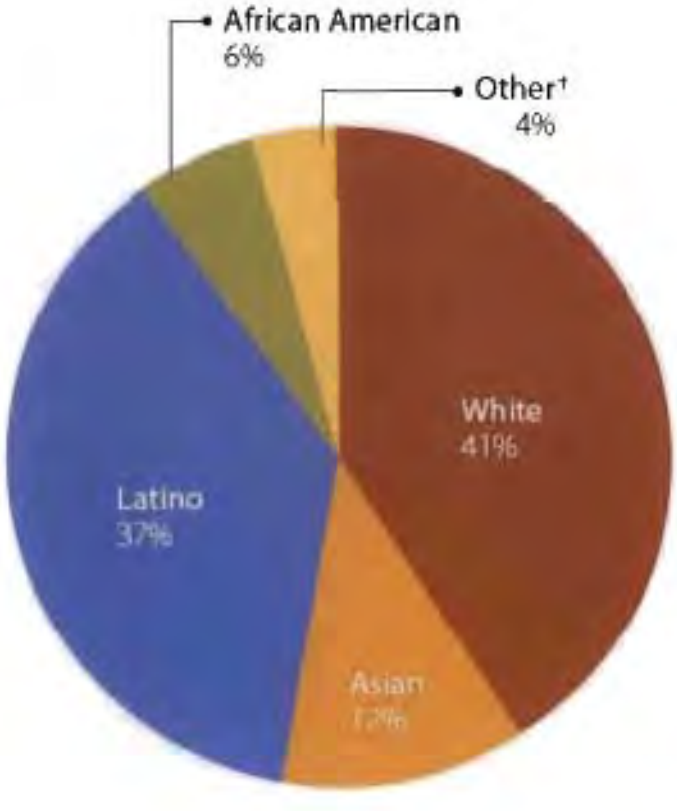
Issue 5: Ethnic and Racial Diversity

PHYSICIANS*



CALIFORNIA POPULATION



Issue 5: Ethnic and Racial Diversity

- Minority physicians are more likely to practice in primary care and work in low income areas and underserved communities

- Studies indicate that many minority patients prefer physicians of their own race and ethnicity because of:
  - Belief in better and more personal care
  - Language barriers
  - Culturally competent care

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What Strategies Are Being Discussed?

Issue 1: The Physician Pipeline

- Increase medical school enrollment in California
  - Expand class sizes at existing schools
  - Build new schools (UC Riverside and UC Merced)

- Expand the number of residency slots in California
  - Short term: independent sources of GME funding
  - Long term: federal reform of the Medicare funding freeze and the Medicaid FMAP formula
  - Long term: new primary source of GME funding (All Payer?)

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Issue 2: Practice Environment

- Uphold the MICRA cap to contain medical liability insurance premiums

- Increase Medi-Cal payments

Issue 3: Primary Care Shortage

- Increase scholarships/grants for medical students to reduce medical education debt
- Increase compensation for primary care services
- Develop a shortened primary care education track

Issue 4: Geographical Distribution

- Expand existing state loan repayment programs for PCPs and specialists working in underserved areas
- Increase Medi-Cal payments (Again!)
- Expand medical schools' rural training programs
- Develop rural and community-based residency programs

Issue 5: Ethnic and Racial Diversity

- Recruit more students from underserved communities
  - Premedical advising services for youths
  - Clinical mentorship opportunities
  - Post-baccalaureate premedical programs
- Reduce financial barriers
  - Stop tuition hikes
  - Offer more scholarships and grants to students with ethnically and economically diverse backgrounds
- Develop medical education programs and continuing medical education courses that focus on culturally competent care

CMA Issue Brief:

California Physician Workforce

Prepared by: Mark Kashtan and Christina Lee



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California approaches 2011 with several landmark changes already set to dramatically alter the state's current health care paradigm. With the baby boomers beginning to retire, national health care reform expanding coverage to millions of previously uninsured citizens, obesity rates hitting epidemic levels and the repercussions of the national recession and California's own severe budget deficit still playing out, it is more important than ever that we continue to assess, address and reform the obstacles facing California's health care system. The most important of these obstacles, and one that is projected to grow substantially in the coming years, is ensuring sufficient and timely physician access for every Californian in need of a physician's care.

The facets of this issue are many. California's population is growing rapidly and aging, increasing the demand for physicians greater than ever before. It is also becoming more culturally and ethnically diverse, and many areas that have traditionally been medically underserved are expected to see the greatest population growth. At the same time, many of California's physicians are approaching retirement themselves, and the pipeline designed to replace them is experiencing key bottlenecks in both medical school and residency training. Medical school debt is also growing faster than physician income, and is one of the primary reasons that the supply of primary care physicians is lagging even further behind than that of specialists.

With the largest health care system of all 50 states, California is an example to the rest of the nation. Many of the challenges it faces are echoed across the country, and how California responds to these challenges could well set the tone for the next generation of health care in the United States. This report presents a detailed assessment of the predominant factors affecting both the supply of and demand for physicians in California. Incorporated also are the recommendations of its authors in addressing those concerns.

For additional information on the materials in this report please contact Jodi Hicks, VP of Government Relations for the California Medical Association at jhicks@cmanet.org or (916) 444-2567.

Current California Physician Demographics

Supply Estimates. In 2008, there were nearly 119,000 physicians with active California medical licenses. However, the Medical Board of California (MBC) reports that only 66,500 were active patient care physicians practicing 20 hours or more a week.

Geographic Distribution of Specialists. The MBC reports that 34 percent of active patient care physicians in California are primary care practitioners (PCPs) while 66 percent are specialists. Residency trends suggest these proportions will persist in the near future. This calculates to roughly 63 primary care physicians and 118 specialists for every 100,000 people. The Council on Graduate Medical Education recommends that a state have 60 to 80 primary care physicians and 85 to 105 specialists per 100,000 people.

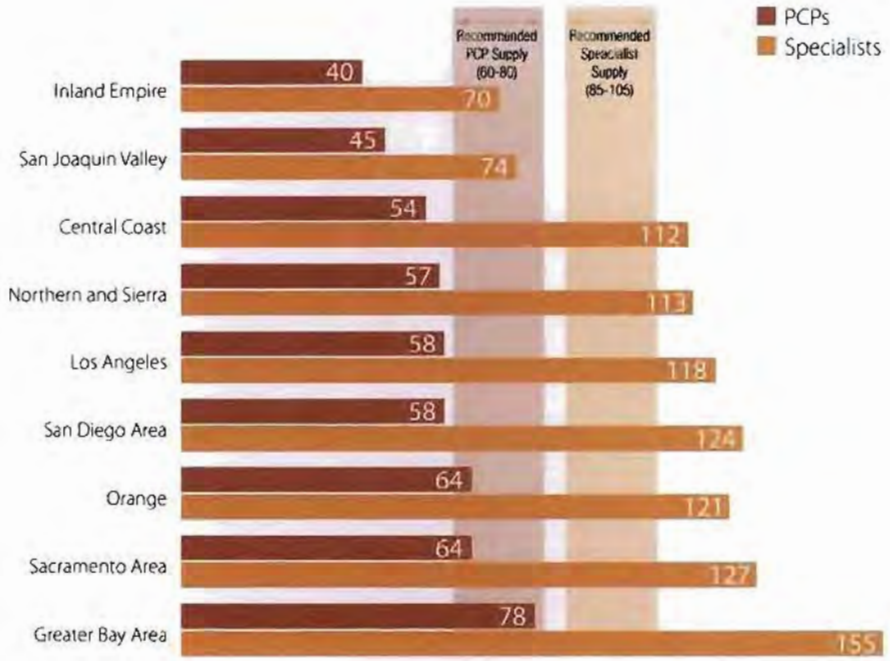
Given these standards, California is barely meeting the recommended supply of primary care physicians and has an oversupply of specialists. However these numbers are deceiving as physicians are distributed unevenly from one region of California to the next. There are shortages of primary care physicians in 74 percent of counties in California, and shortages of specialists in 45 percent of counties **(Figure 1).**

Education. California recruits 74 percent of its active patient care physicians from out-of-state or foreign medical schools. International medical graduates represent 25 percent of all active patient care physicians and 31 percent of all primary care physicians in the state.

Age. Nearly 30 percent of active California physicians are over the age of 60, giving California the oldest physician workforce of any state.

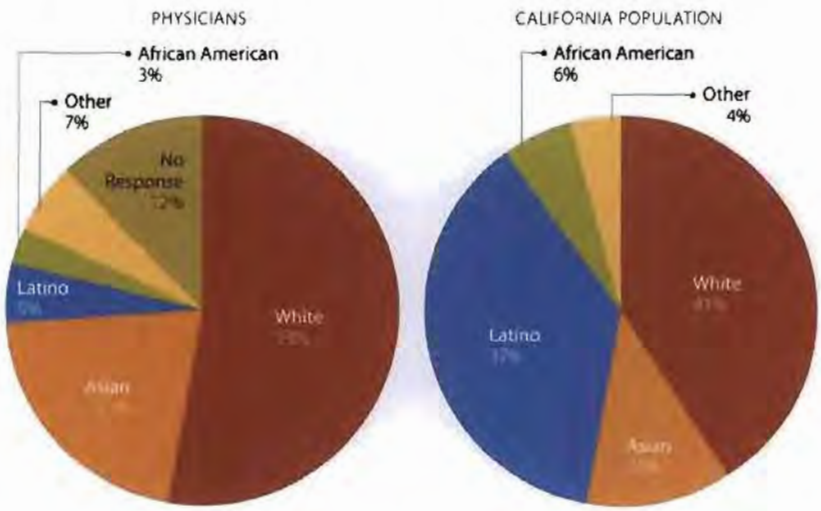
Ethnic and Racial Diversity. California's physician workforce does not reflect the ethnic and racial diversity of the population that it serves, with Latinos particularly underrepresented. Other underrepresented groups include African Americans and the Samoan, Cambodian, and Hmong/Laotian ethnicities **(Figure 2).**

Figure 1: Active Primary Care Physicians and Specialists per 100,000 Population, California



Source: "California Health Care Almanac: California Physician Facts and Figures." California Health Care Foundation. July 2010. p 7.

Figure 2: Race and Ethnicity of California Physicians and Population, 2008



Source: "California Health Care Almanac: California Physician Facts and Figures." California Health Care Foundation. July 2010. p 13.

Factors Affecting Physician Supply and Demand

In 1980 the Graduate Medical Education National Advisory Committee released a report projecting an oversupply of physicians by the year 2000. In response medical schools capped their enrollment and the federal government froze funding for residency training. However, 30 years later an oversupply of physicians has yet to materialize. In fact, the most conservative estimates now project a shortage of as many as 17,000 physicians in California by 2015.

Population Growth. Between 1995 and 2009 the state grew by 20 percent, considerably ahead of the national average. The areas expected to see the most growth in the next five years – the Inland Empire, Central Valley and South Valley regions – are also some of the most medically-underserved areas in California.

An Aging Population. Seniors account for more patient visits, physician hours, and health care expenditures than any other age group. Between 1998 and 2008, the number of Californians over 65 increased by 22 percent. This demographic is expected to continue seeing strong growth through 2025.

An Aging Physician Workforce. The number of physicians retiring currently outpaces the number of physicians entering the profession in California, a trend expected to continue until 2020. Older physicians also tend to spend fewer hours each week working directly in patient care.

Ethnic and Racial Diversity. Minority physicians are more likely to practice in primary care and play a key role in addressing the health needs of underserved communities. Over 40 percent of minority physicians in California practice primary care compared to 30 percent of other physicians. Minority physicians are also more likely to practice in medically-underserved areas. Health Professions Shortage Areas, communities with high proportions of minorities, and low income communities.

Career Focus. Only 51 percent of physicians in California work full time in patient care. Other physicians split their time among teaching, health policy, research or administrative duties.

Work Hours. Younger physicians are choosing to prioritize their work-life balance more than in generations past, electing to work fewer hours and retire earlier than their predecessors.

Medical School Debt and Other Financial Pressures. Financial considerations for choosing a specialty often start long before a physician enters the workforce, as the average medical student in the United States is now graduating with over $150,000 in debt. If tuition continues to rise at the current rate, average medical school debt will approach $750,000 by 2033.

The cost of medical malpractice insurance adds to these concerns, with physicians in high risk specialties paying up to $90,000 a year for coverage in California. California also possesses the second highest cost of living in the United States at 132 percent of the national average, which translates to higher practice costs.

The combination of these factors strongly influences which specialties physicians choose to pursue and where they practice. Generalist fields such as primary care and internal medicine pay considerably less than specialist fields such as neurologic surgery and oncology. As a result of these financial considerations, fewer and fewer medical students are opting for these professions, despite those being the areas of the greatest and fastest growing need.

Table 1: National Physician Workforce Projections, All Specialties

	Supply	Demand	Shortage
2010	709,700	723,400	13,700
2015	735,600	798,500	62,900
2020	759,800	851,300	91,500
2025	785,400	916,000	130,600

Source: AAMC Center for Workforce Studies, June 2010

Compensation Disparity. A study analyzing physician salaries in 2005 found that primary care physicians made only 70 percent of the median pay rate for all physicians.

while specialists such as immunologists, dermatologists and orthopedic surgeons averaged 67 percent higher per-hour compensation, and others, such as neurologic surgeons, averaged over 120 percent more per hour than primary care physicians. Despite these significant disparities, the compensation gap between primary care physicians and some specialists, such as surgeons, is growing. Also concerning is the fact that while most physicians in California earn an income comparable to the national average in their field, family and general medicine practitioners in-state make only 88 percent of what their peers across the country do.

Medi-Cal Rates. California has the 4th lowest Medicaid (Medi-Cal) reimbursement rate among the fifty states at 56 percent of the federal Medicare rate, and pays out less in benefits per enrollee than any other state. These low payment rates are making it increasingly difficult for physicians to treat Medi-Cal patients while staying financially viable. Largely because of low reimbursement rates and administrative red tape, only 57 percent of physicians were able to accept new Medi-Cal patients in 2008.

Many of the counties with the largest Medi-Cal populations are also in regions of California already facing significant physician shortages. Three of the regions in California with the fewest physicians – the San Joaquin Valley, Inland Empire and Central Coast – collectively accounted for over 32 percent of Medi-Cal patients in 2009. As a result, physicians are not only being disincentivized from seeing Medi-Cal patients in general, but are being disincentivized from moving to physician shortage areas due to the financial difficulties of running a practice with a large Medi-Cal patient base. With Medi-Cal set to expand greatly as a result of the recession and federal health care reform, these problems will likely only grow in the future.

MICRA. The Medical Injury Compensation Reform Act (MICRA) was enacted in 1975 to rein in health care costs and stem the tide of physicians leaving California because of rapidly increasing medical liability insurance premiums. Under MICRA, compensation to an injured patient for non-economic damages (commonly referred to as pain and suffering) is capped at $250,000. Patients are not restricted, however, in the damages they can seek for past and future medical costs, lost wages, lifetime earning potential, or punitive damages. If the limits on non-economic damages were increased or removed, it would have a significant negative effect on California's physician supply, health care access and health care spending.

California currently reaps significant benefits from MICRA through lower medical liability insurance premiums. Of the five states with the largest share of the insurance market, California has the smallest premiums. California physicians paid less than half the amount their counterparts did in Illinois in 2005 (before Illinois implemented MICRA-type reforms) and as little as 30 percent of what their peers paid in Florida (Florida having a larger $500,000 cap on non-economic damages). For some specialties, these differences amounted to as much as $230,000 a year.

If the limit on non-economic damages were increased or removed, medical liability insurance premiums would be expected to increase by up to 43 percent, disincentivizing physicians to practice in California and exacerbating the state's already significant physician shortage. Medical students would be discouraged from pursuing high-risk specialties such as obstetrics that carry higher insurance premiums. Fewer physicians would want to practice in rural and inner city areas where it is more difficult to absorb increased costs. Overall, California would experience increased difficulties both in attracting new physicians and retaining current ones, as those physicians unable to shoulder the added costs may choose to practice elsewhere or retire early.

Federal Health Care Reform. The Patient Protection and Affordable Care Act (PPACA) of 2010 encompasses a wide range of provisions, the most significant of which are a suite of regulations and reforms overhauling health insurance. Set to roll out in stages between now and 2014, these reforms focus on closing a variety of coverage gaps and loopholes, and establish a Patients' Bill of Rights to curb abusive insurance company practices.

Many of California's 6.7 million uninsured citizens will be affected. Medicaid will be expanded to include all individuals with incomes below 133 percent of the Federal Poverty Line (FPL), which will make 1.7 million previously uninsured Californians eligible for Medi-Cal. Individuals with incomes between 133 percent and 400 percent of the FPL will be eligible to receive premium credits and federal subsidies for purchasing health insurance through the state-based health insurance exchange that PPACA also creates. Approximately 1.4 million currently uninsured Californians are expected to qualify for some level of financial assistance under this provision. Furthermore, businesses will be encouraged to offer adequate health care insurance to their full-time employees with a two-pronged approach: large businesses will be subject to a number of penalties and taxes if they don't offer sufficient health insurance plans, while small businesses will be eligible to receive tax credits and penalty exemptions if they do.

These newly insured populations will likely exacerbate the growing physician shortage in California. Recognizing this fact, Congress included a series of grant projects in the federal health reform legislation to expand the physician workforce and increase incentives for pursuing primary care. California may be able to seek some of these grants as the effects of reform unfold in the coming years (for a list of grant projects see Appendix).

The Physician Training Pipeline

The road to becoming a practicing physician is a long one. Before applying to medical school, prospective applicants must receive an undergraduate degree from a four-year university and sit for the Medical College Admissions Test (MCAT). If they have met all eligibility requirements, a pre-medical student can then begin the 12-month application cycle. Medical school lasts four years, with the first two years generally being geared towards classroom learning and the second two spent performing clerkships in different medical specialties. Students take a standardized exam (United States Medical Licensing Examination, or USMLE) at the end of the second and fourth years. In the final year of medical school students also participate in the National Residency Matching Program, which assigns students to a residency program where they will complete their formal training. Residency generally lasts from three to eight years depending on the specialty, and can be followed by a multi-year fellowship if the physician chooses to specialize further. During residency, generally after the first year, residents take the USMLE Part 3 exam, which qualifies them to apply for a medical license. Most physicians also complete a board certification exam in their chosen specialty.

Medical School

Population Growth. In the last 15 years, the number of California medical school graduates has been stagnant, while the California population has grown by 20 percent (nearly 7 million people). In 2009 there were over 45,500 applications to California's eight medical schools for 1,084 spots.

In-State Matriculation. In 2008, only 41 percent of medical students from California were able to attend an in-state medical school, ranking California 37th among states in in-state matriculation. This was despite over 90 percent of matriculants to public medical schools and over 53 percent of matriculants to private medical schools in California being state residents.

Retention. Physicians who train in California want to stay in California. California leads the nation in retaining its medical school graduates, with over 62 percent of active, California-educated physicians currently practicing in-state. However, these physicians constitute only a quarter of California's workforce. California also retains 69 percent of its residents and fellows, which accounts for 55 percent of the state's practicing physicians. California-born physicians who undergo training out-of-state do not return in appreciable numbers.

Table 2: California Physicians Pipeline Supply Data

	i A	US Avg.
Med Student / 100k Pop.	17.2	30.1
Residents / 100k Pop.	25.1	áQé

Source: AAMC Physician Workforce Databook, 2009

Residency and Fellowship

Residency Slots. Residency is the primary bottleneck in the United States' physician training pipeline, as over 37,500 candidates applied for only 25,520 residency slots in 2010. While this scarcity is a nationwide issue, California suffers a particular shortage; despite being home to 12 percent of the United States' population, it hosts only 8.3 percent of the country's medical residents. In 2008, California had 9,200 medical residents, or 25.1 per every 100,000 people, significantly below the national average of 35.7 per 100,000 people.

Funding. Medicare is the single largest source of graduate medical education (GME) funding in the United States, accounting for almost 70 percent of all GME expenditures ($8.4 billion in 2008). However, the number of residency positions eligible for Medicare funding was frozen by the Balanced Budget Act of 1997. Since then teaching hospitals have been unable to receive federal support to expand their residency programs. The second largest source of GME funding, Medicaid, is also underfunded in California. The Federal Medical Assistance Percentage (FMAP), which is the formula used to determine the federal contribution to each state's Medicaid programs, is based primarily on each state's per capita income relative to the national average. California, having both a high per capita income and a high poverty rate, receives the minimum federal assistance despite providing services for a large proportion of its population.

Quality Concerns. All residency programs must obtain and periodically renew accreditation through the Accreditation Council for Graduate Medical Education (ACGME). ACGME is also responsible for determining each program's resident complement. The Council on Graduate Medical Education (COGME) has raised concerns that the residency approval process is a major barrier to expanding residency programs, saying, "the approval process...is time consuming at best and at worst frequently a major barrier that must be negotiated in order to expand the number of trainees in any accredited program." COGME has also raised concerns about the current model of residency training, in which large numbers of residents are based in relatively few teaching hospitals. They argue that this methodology fails to recognize our health care system's increasingly ambulatory care model, and as a result is delivering an education increasingly less relevant to real-world practice.

Recommendations

1. Train more physicians in California:

- Increase medical school enrollment and the number of medical schools in California to more appropriately match the size of the state population. This includes logistic and financial support for two new medical schools at UC Merced and UC Riverside currently being developed.
- Expand the number of residency/fellowship slots in California by aggressively pursuing private and PPACA funding in the short term, while advocating for long term federal reforms in the areas of the Medicare funding freeze and the Medicaid FMAP formula. PPACA has also opened the door to innovation in the current model of residency training, which California should take advantage of to assure our physicians' training accurately reflects the ambulatory care models of the future.

2. Recruit more physicians trained outside of California:

- Uphold MICRA's non-economic damages cap to contain medical liability insurance premiums and keep California an attractive state to locate a medical practice in.

3. Increase the incentives for pursuing primary care:

- Increase scholarships/grants for medical students to reduce medical education debt.
- Increase compensation for primary care services.

4. Increase incentives for working in underserved areas:

- Expand existing state loan repayment programs for primary care physicians and specialists working in underserved areas.
- Increase Medi-Cal reimbursements.

5. Increase diversity of the physician workforce:

- Support and expand post baccalaureate premedical programs that help to increase ethnic and socioeconomic diversity of medical students. Research indicates that graduating from these programs increases the likelihood of going to medical school over three-fold.
- Encourage and recruit more students from underserved communities, who will likely return to serve those areas after completing training, to go into medicine. This includes the support of premedical advising services and mentorship opportunities in a clinical setting for youths considering medical careers.
- Reduce financial barriers to pursuing medicine by offering more scholarships and grants to students with ethnically and economically diverse backgrounds.
- Develop and support medical education programs and continuing medical education courses with specialized curricula that teach physicians the art of providing culturally competent care.

Appendix: Health Reform Grant Projects

Grant Project	Who	Amount and Duration	Description
State Health Care Workforce (Implementation)	Eligible Partnerships	Per state: Unspecified Total: $150 million (2 Years)	Build partnerships to develop a comprehensive plan around enhancing workforce.
State and Regional Centers for Health Workforce Analysis	States, Health Professions Schools, or Non-Profit entities	Per state: Unspecified Total: $18 million (4 Years)	Collect and analyze data regarding the health care workforce in the State. Includes a 25% match requirement.
Primary Care Training and Enhancement	Public or Private Non-Profit Hospitals, Medical or Osteopathic Schools	Per state: Unspecified Total: $125 million (5 Years)	Build Primary Care training, residency, or internship program. Train physicians on providing care through a medical home.
Capacity Building in Primary Care	Medical or Osteopathic Schools	Per state: Unspecified Total: $125 million (5 Years)	Build or expand programs that train primary care providers on medical homes, disease management, and cross-sector collaboration.
Geriatric Education and Training	Geriatric Education Centers	Per state: $150,000 Total: $10.8 million (5 Years)	Create geriatric fellowship programs for faculty of medical, osteopathic, or health professions schools.
Mental and Behavioral Health Education Grants	Higher Education Institutions	Per state: Unspecified Total: $10 million (4 Years)	Create or expand internship opportunities in psychiatry.
Primary Care Extension Program State Hubs	State-Level Collaborations (must include Medicaid, State Health Department, and others)	Per state: Unspecified Total: $120 million (2012 and 2013) (6 Years)	Provide support and education to primary care providers regarding evidenced-based care, health promotion, and chronic disease management.
Rural Physician Training Grants	Medical Schools	Per state: Unspecified Total: $16 million (4 Years)	Grants to medical schools to create programs to train students to practice in rural settings.